

Kindly enter the following Amendment:

ATTORNEY DOCKET NUMBER

Please change the Attorney Docket Number to --P64258US1--.

IN THE CLAIMS

Please amend the claims as follows:

1. (Amended) A uni-directional fluid valve comprising a cantilevered flexible flap and a cooperating valve seat surrounding a valve orifice; the cantilevered flexible flap having a planform defining a root end and a free end at opposite ends of a longitudinal axis of the flap, and two peripheral side edges respectively extending between the root end and the free end; the valve seat having sealing surfaces that contact the flap along said root end, free end and peripheral side edges when the fluid valve is closed; the cantilevered flexible flap is mounted [between] in contact with the respective sealing surface of the valve seat at said root end and is freely movable to flex away from the respective sealing surfaces of the valve seat at said free end and along at least portions of said peripheral side edges when fluid flows through the fluid valve and the fluid valve is open; and said root end of the cantilevered flexible flap and the respective sealing surface that contacts the cantilevered flexible flap at said root end have a fixed curvature in a direction transverse to said longitudinal axis, said transverse curvature biases the flap and maintains it substantially in contact with all said

TOP SECRET SHEETS

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sealing surfaces of the valve seat in the absence of an opening pressure differential across the flap, in any orientation of the valve.

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10. (Amended) A filter mask having an exhalation valve comprising a cantilevered flexible flap and a cooperating valve seat surrounding a valve orifice; the cantilevered flexible flap having a planform defining a root end and a free end at opposite ends of a longitudinal axis of the cantilevered flexible flap, and two peripheral side edges respectively extending between the root end and the free end; the valve seat having sealing surfaces that contact the cantilevered flexible flap along said root end, free end and peripheral side edges when the exhalation valve is closed; the cantilevered flexible flap is mounted [between] in contact with the respective sealing surface of the valve seat at said root end and is freely movable to flex away from the respective sealing surfaces of the valve seat at said free end and along at least portions of said peripheral side edges when a user of the filter mask exhales and causes the exhalation valve to open; and said root end of the cantilevered flexible flap and the respective sealing surface that contacts the cantilevered flexible flap at said root end have a fixed curvature in a direction transverse to said longitudinal axis, said transverse curvature biases the flap and maintains it substantially in contact with all said sealing surfaces of the valve seat in the absence of an exhalatory pressure differential across the flap, in any orientation of the valve.

12. (Amended) A uni-directional fluid valve comprising:

a cantilevered flexible flap and a cooperating valve seat surrounding a valve orifice;

the cantilevered flexible flap having a planform defining a root end and a free end at opposite ends of a longitudinal axis of the flap;

the valve seat having sealing surfaces that contact the flap at said root end and the free end when the fluid valve is closed;

the cantilevered flexible flap being mounted [between] in contact with the respective sealing surface of the valve seat at said root end and being freely movable to flex away from the respective sealing surface of the valve seat at said free end when fluid flows through the fluid valve and the fluid valve is open; and

said root end of the cantilevered flexible flap and the respective sealing surface that contacts the cantilevered flexible flap at said root end having a transverse configuration extending in a direction transverse to said longitudinal axis, said transverse configuration resulting in maintaining the flap substantially in contact with said sealing surfaces of the valve seat in the absence of an opening pressure differential across the flap, in any orientation of the valve.

13. (Amended) A uni-directional fluid valve comprising:

a cantilevered flexible flap and a cooperating valve seat surrounding a valve orifice;

the cantilevered flexible flap having a planform defining a root end and a free end at opposite ends of a longitudinal axis of the flap, and two peripheral side edges respectively extending between the root end and the free end;

the valve seat having sealing surfaces that contact the flap at said root end, said free end, and said peripheral side edges when the fluid valve is closed;

the cantilevered flexible flap being mounted [between] in contact with the respective sealing surface of the valve seat at said root end and being freely movable to flex away from the respective sealing surface of the valve seat at said free end and along at least portions of said peripheral side edges when fluid flows through the fluid valve and the fluid valve is open; and

said root end of the cantilevered flexible flap and the respective sealing surface that contacts the cantilevered flexible flap at said root end having a transverse configuration extending in a direction transverse to said longitudinal axis, said transverse configuration resulting in maintaining the flap substantially in contact with said sealing surfaces of the valve seat in the absence of an opening pressure differential across the flap, in any orientation of the valve.

14. (Amended) A filter mask having an exhalation valve comprising:
a cantilevered flexible flap and a cooperating valve seat surrounding a valve orifice;
the cantilevered flexible flap having a planform defining a root end and a free end at
opposite ends of a longitudinal axis of the cantilevered flexible flap;
the valve seat having sealing surfaces that contact the cantilevered flexible flap along
said root end and said free end when the exhalation valve is closed;
the cantilevered flexible flap being mounted [between] in contact with the respective
sealing surface of the valve seat at said root end and being freely movable to flex away from
the respective sealing surface of the valve seat at said free end when a user of the filter mask
exhales and causes the exhalation valve to open and wherein said root end of the cantilevered
flexible flap and the respective sealing surface that contacts the cantilevered flexible flap at
said root end have a transverse configuration extending in a direction transverse to said
longitudinal axis so that the flap is substantially maintained in contact with all of said sealing
surfaces of the valve seat in the absence of an exhalatory pressure differential across the flap,
in any orientation of the valve.

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15. (Amended) A filter mask having an exhalation valve comprising:
a cantilevered flexible flap and a cooperating valve seat surrounding a valve orifice;
the cantilevered flexible flap having a planform defining a root end and a free end at
opposite ends of a longitudinal axis of the cantilevered flexible flap, and two peripheral side
edges respectively extending between the root end and the free end;
the valve seat having sealing surfaces that contact the cantilevered flexible flap along
said root end, free end and peripheral side edges when the exhalation valve is closed;
the cantilevered flexible flap being mounted [between] in contact with the respective
sealing surface of the valve seat at said root end and being freely movable to flex away from
the respective sealing surfaces of the valve seat at said free end and along at least portions
of said peripheral side edges when a user of the filter mask exhales and causes the exhalation
valve to open and wherein said root end of the cantilevered flexible flap and the respective
sealing surface that contacts the cantilevered flexible flap at said root end have a transverse
configuration extending in a direction transverse to said longitudinal axis so that the flap is
substantially maintained in contact with all of said sealing surfaces of the valve seat in the
absence of an exhalatory pressure differential across the flap, in any orientation of the valve.

REMARKS

Claims 1-15 are pending in the application.

By the foregoing Amendment, claims 1, 10, 12, 13, 14, and 15 are amended to change
"mounted between" to "mounted in contact with". This amendment is believed necessary as

“between” is believed to render the claims indefinite, as the limitation “the cantilevered flexible flap is mounted between the respective sealing surface” does not specify a second element between which the flap is mounted. Support for the amendment to the claims is found at column 3, lines 16-21 (“The flap 7 is positioned in the valve by a notch 13 at one end embracing a block 14 on housing member 5, and when the housing members are snapped together that end of the flap becomes trapped between the adjacent portion 9A of the seal ridge and a profiled block 15 upstanding from housing member 6.”) and column 3, lines 44-53 (“In use, therefore, the flap 7 seats upon the seal ridge to prevent the passage of any air into the mask through the valve 4 while the user is not exhaling. At the commencement of exhalation, as soon as a minimum ‘cracking’ pressure differential is applied to the flap 7 from the interior of the mask the free end of the flap will lift away from the seal ridge in the sense of the arrow X in FIG. 4, and flexure of the flap will progress rapidly along its length towards the fixed (root) end, to a position determined by the instantaneous rate of flow of exhalate out through ports 8 and 10.”). These changes are believed not to affect the allowability of the claims or introduce new matter, and entry of the Amendment is respectfully requested.

A Supplemental Reissue Declaration accompanies this Response.

In response to the requirement that the original patent be surrendered, the original patent is also submitted herewith.

Acknowledgment of Supplemental Information Disclosure Statement

A Supplemental Information Disclosure Statement was mailed on July 17, 2000 for the Examiner’s consideration. If the Supplemental Information Disclosure Statement has not been

matched with the PTO's application file, the Examiner is requested to call the undersigned counsel so that another copy can be provided. If the Supplemental Information Disclosure Statement has been matched with the PTO file, it is requested that the Examiner initial the space adjacent each document entry on the accompanying Form PTO-1449, and return a copy of the initialed Form PTO-1449 to confirm that the documents have been considered and have been officially made of record in this application.

Request to Verify Change of Address

A "Notice of Change of Address" has been filed in this application to direct the PTO to send correspondence to the correspondence address associated with Customer No. 000,136, which is the address set forth in the signature block below. If the Notice has not been matched with the PTO's application file, the Examiner is requested to call the undersigned counsel so that another copy can be provided. If the Notice has been matched with the PTO file, it is requested that the Examiner verify that the information has been entered into the PTO mailing system so that future communications will be mailed to the correct address.

Conclusion

All requirements have been complied with, properly traversed, or rendered moot. Thus, it now appears that the application is in condition for allowance. Should any questions arise, the Examiner is invited to call the undersigned representative so that this case may receive an early Notice of Allowance.

Favorable consideration and allowance are earnestly solicited.

Respectfully submitted,

JACOBSON, PRICE, HOLMAN & STERN, PLLC

Date: Aug. 30, 2000

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